TOSHIBA
Leading Innovation ›››

HV10G*
ANALOGUE
Series

VX1A00227600

Safety Precautions

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken to obtain the best results and for safety to be assured. Please read the points below for your own safety.
They are of a general nature, intended to help with all electronic consumer products, and some points may not apply to the goods you have just purchased.

Air Circulation

Leave more than 10cm clearance around the television to allow adequate ventilation. This will prevent overheating and possible damage to the television. Dusty places should also be avoided.

Heat Damage

Damage may occur if the television is left in direct sunlight or near a heater. Avoid places subject to extremely high temperatures or humidity. Place in a location where the temperature remains between 5°C (41°F) min. and 35°C (94°F) max.

Mains Supply

The mains supply required for this equipment is 220-240v AC 50/60Hz. Never connect to a DC supply or any other power source. DO ensure that the television is not standing on the mains lead. Use only the supplied lead. DO NOT cut off the mains plug from this equipment, this incorporates a special Radio Interference Filter, the removal of which will impair its performance.
IF IN DOUBT, PLEASE CONSULT A COMPETENT ELECTRICIAN.

Do

DO read the operating instructions before you attempt to use the equipment.

DO ensure that all electrical connections (including the mains plug, extension leads and interconnections between pieces of equipment) are properly made and in accordance with the manufacturers' instructions. Switch off and withdraw the mains plug before making or changing connections.

DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.

WARNING: To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions. See page 3.

DO be careful with glass panels or doors on equipment.

DO NOT REMOVE ANY FIXED COVERS AS THIS WILL EXPOSE DANGEROUS AND 'LIVE' PARTS.

THE MAINS PLUG IS USED AS A DISCONNECTING DEVICE AND THEREFORE SHOULD BE READILY OPERABLE.

Do not

DO NOT obstruct the ventilation openings of the equipment with items such as newspapers, tablecloths, curtains, etc. Overheating will cause damage and shorten the life of the equipment.

DO NOT allow electrical equipment to be exposed to dripping or splashing or objects filled with liquids, such as vases, to be placed on the equipment.

DO NOT place hot objects or naked flame sources, such as lighted candles or nightlights on, or close to equipment. High temperatures can melt plastic and lead to fires.

WARNING: To prevent the spread of fire, keep candles or other open flames away from this product at all times.

DO NOT use makeshift stands and NEVER fix legs with wood screws. To ensure complete safety, always fit the manufacturer's approved stand, bracket or legs with the fixings provided according to the instructions.

DO NOT leave equipment switched on when it is unattended, unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off by withdrawing the plug, and make sure your family knows how to do this. Special arrangements may need to be made for people with disabilities.

DO NOT continue to operate the equipment if you are in any doubt about it working normally, or it is damaged in any way – switch off, withdraw the mains plug and consult your dealer.

ABOVE ALL - NEVER let anyone, especially children, push or hit the screen and cabinet back, or push anything into holes, slots or any other openings in the case. These actions will damage screen or internal parts.
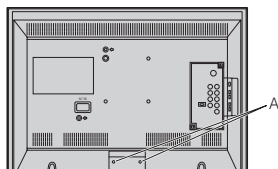
NEVER guess or take chances with electrical equipment of any kind – it is better to be safe than sorry.
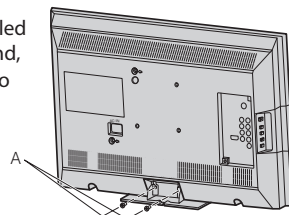
Installation and important information

Pedestal stand Assembling

1 Remove two screws (A).
Use these screws to attach the pedestal stand.

A

2 After the TV is installed on the pedestal stand, use two screws (A) to attach the pedestal stand.

A

Where to install

Locate the television away from direct sunlight and strong lights. Soft, indirect lighting is recommended for comfortable viewing. Use curtains or blinds to prevent direct sunlight falling on the screen.

Place the TV on a stable, level surface that can support the weight of the TV.
In order to prevent injury and maintain stability of this apparatus, secure the TV on the level surface using the mounting screw (supplied for 32HV10G only).

Screw hole

Top view
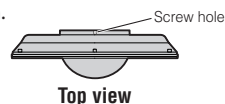
The LCD display panels are manufactured using an extremely high level of precision technology; however, sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a sign of a malfunction.

Make sure the television is located in a position where it cannot be pushed or hit by objects, as pressure will break or damage the screen. Also, please be certain that small items cannot be inserted into slots or openings in the case.

Cleaning the screen and cabinet…
Turn off the power, and clean the screen and cabinet with a soft, dry cloth. The enclosed cleaning cloth is for cabinet cleaning. We recommend that you **do not** use any proprietary polishes or solvents on the screen or cabinet as this may cause damage.

Please take note

If stationary images generated by 4:3 broadcasts, text services, channel identification logos, computer displays, video games, on-screen menus, etc. are left on the television screen for any length of time, they could become conspicuous. It is always advisable to reduce both the brightness and contrast settings.
Very long, continuous use of the 4:3 picture on a 16:9 screen may result in some retention of the image at the 4:3 outlines. This is not a defect of the LCD TV and is not covered under the manufacturer's warranty. Regular use of other size modes (e.g.: Super Live) will prevent permanent retention.
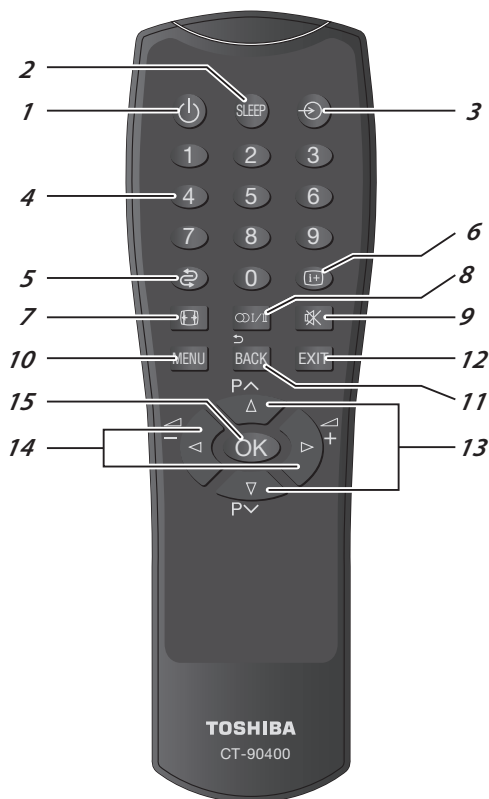
The remote control

Simple at-a-glance reference of your remote control.

1 For On/Standby mode

2 To set the sleep time

3 To select external input sources

4 Number buttons

5 To return to the previous programme

6 To display on-screen information

7 Widescreen viewing

8 I/II Stereo/bilingual transmissions

9 To mute the TV sound

10 On-screen Menus

11 To return to previous Menu

12 To exit menus

13 To change programme positions
When no menu is on screen, these buttons select the programme position.
To select menu up or down
When using menus, the arrows move the cursor on the screen up or down.

14 To alter the TV volume
When no menu is on-screen, these buttons adjust the volume level.
To select menu left or right
When using menus, the arrows move the cursor on the screen left or right.

15 To confirm your selection

Inserting batteries and effective range

Remove the back cover to reveal the battery compartment and make sure the batteries are inserted the proper way. Suitable battery types for this remote are AAA, IEC R03 1.5V.
Do not combine a used, old battery with a new one or mix battery types. Remove dead batteries immediately to prevent acid from leaking into the battery compartment. Dispose of them in accordance with instructions on page 15 of this manual.

Warning: Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

The performance of the remote control will deteriorate beyond a distance of five metres or outside an angle of 30 degrees from the centre of the television. If the operating range becomes reduced, the batteries may need replacing.

Connecting external equipment

Before connecting any external equipment, turn off all main power switches. If there is no switch, remove the mains plug from the wall socket.

Aerial Cable

VIDEO/AUDIO INPUTS (VIDEO1)

COMPONENT VIDEO/AUDIO INPUTS (VIDEO2)

HDMI INPUT
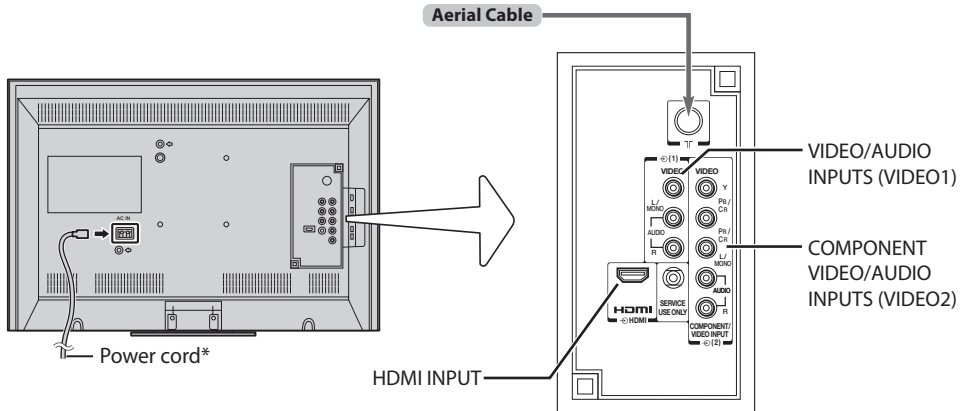
Power cord*

*Power cord
- Make sure to insert the plugs firmly, when plugging the AC power cord into the TV set end and wall outlet end.
- Make sure to hold the plug, when unplugging the AC power cord.
- Never use other cord except for supplied AC power cord, and never use the supplied power cord for any other purpose.

Aerial cables:. . . . .
Connect the aerial to the socket on the rear of the television.

The phono sockets alongside the **COMPONENT VIDEO INPUT** sockets will accept L and R audio signals.

HDMI® (High-Definition Multimedia Interface) is for use with a DVD decoder or electrical equipment with digital audio and video output. For acceptable video or PC signal formats through the HDMI terminals, see page 7.

NOTE: Although this television is able to connect to HDMI equipment, it is possible that some equipment may not operate correctly.

A wide variety of external equipment can be connected to the back of the television; therefore, the relevant owner's manuals for all additional equipment must be referred to for exact instructions.

If the television automatically switches over to monitor external equipment, return to normal television by pressing the desired programme position button. To recall external equipment, press ⊡/⊖ to select between **VIDEO1**, **VIDEO2**, **HDMI** or **TV**.

Connecting an HDMI® device

The HDMI input on your television receives digital audio and uncompressed digital video from an HDMI source device.

This input is designed to accept HDCP (High-Bandwidth Digital-Content Protection) programme material in digital form from EIA/CEA-861-D–compliant consumer electronic devices (such as a set-top box or DVD player with HDMI output).

NOTE: Supported Audio format: Linear PCM sampling rate 32/44.1/48kHz.

To connect an HDMI device

Connect an HDMI cable (type A connector) to the HDMI terminal.
For proper operation, it is recommended that you use an HDMI cable with the HDMI Logo (HDMI).
• If your HDMI connection is capable of 1080p and/or your television is capable of refresh rates greater than 50Hz, you will need a Category 2 cable. Conventional HDMI/DVI cable may not work properly with this model.
• HDMI cable transfers both video and audio. Separate analogue audio cables are not required.

the back of your television

HDMI device   HDMI cable →
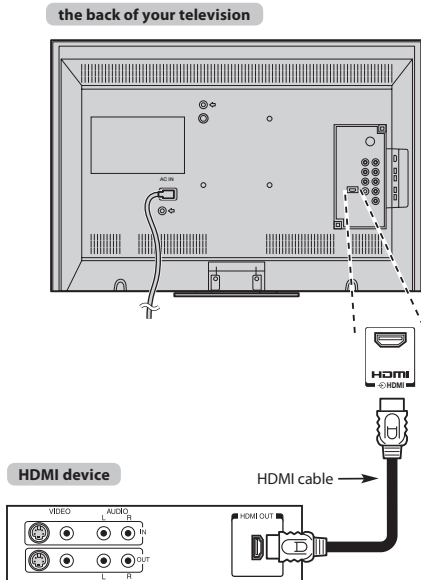
Connecting a computer

When connecting a PC to the HDMI terminal on the television, use an HDMI-to-DVI adaptor cable.

If connecting a PC with an HDMI terminal, use an HDMI cable (type A connector).

the back of your television

Computer

HDMI-to-DVI adaptor cable
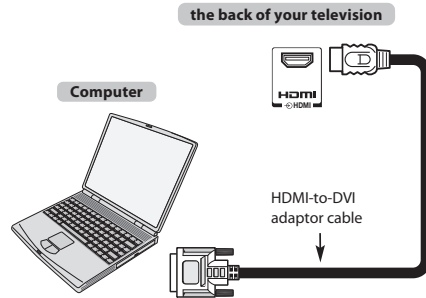
NOTE:
• The edges of the images may be hidden.
• If connecting a certain PC model with a unique PC signal, the PC signal may not be detected correctly.

HDMI, the HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing, LLC.

## Acceptable video or PC signals through the HDMI terminals

The HDMI inputs on this TV only accept VGA, SVGA, XGA, WXGA, and SXGA signal formats which are compliant with VESA as shown in the table below. Since some PCs and HDMI or DVI devices input signals which are different from the resolution and frequency described in the table below, the following phenomenon may occur; incorrect display, false format detection, picture position failure, blur, or judder.
In this case, set the monitor output format on your PC, HDMI or DVI device to conform to a signal in the table below.

Format	Resolution	V. Frequency	H. Frequency	Pixel Clock Frequency	VESA Standard
480i	720 × 480i	59.940/60.000Hz	15.734/15.750kHz	27.000/27.027MHz	
576i	720 × 576i	50.000Hz	15.625kHz	27.000MHz	
480p	720 × 480p	59.940/60.000Hz	31.469/31.500kHz	27.000/27.027MHz	
576p	720 × 576p	50.000Hz	31.250kHz	27.000MHz	
1080i	1920 × 1080i	59.940/60.000Hz	33.716/33.750kHz	74.176/74.250MHz	
1080i	1920 × 1080i	50.000Hz	28.125kHz	74.250MHz	
720p	1280 × 720p	59.940/60.000Hz	44.955/45.000kHz	74.176/74.250MHz	
720p	1280 × 720p	50.000Hz	37.500kHz	74.250MHz	
1080p	1920 × 1080p	59.940/60.000Hz	67.433/67.500kHz	148.352/148.500MHz	
1080p	1920 × 1080p	50.000Hz	56.250kHz	148.500MHz	
VGA	640 × 480	59.940/60.000Hz	31.469/31.500kHz	25.175/25.200MHz	●
SVGA	800 × 600	60.317Hz	37.879kHz	40.000MHz	●
XGA	1024 × 768	60.004Hz	48.363kHz	65.000MHz	●
WXGA	1280 × 768	59.995Hz	47.396kHz	68.250MHz	●
		59.870Hz	47.776kHz	79.500MHz	●
	1360 × 768	60.015Hz	47.712kHz	85.500MHz	●
SXGA	1280 × 1024	60.020Hz	63.981kHz	108.000MHz	●

Controls

While all the necessary adjustments and controls for the television are made using the remote control, the buttons on the television may be used for some functions.

Control panel

RED LED - Standby
GREEN LED - Power on
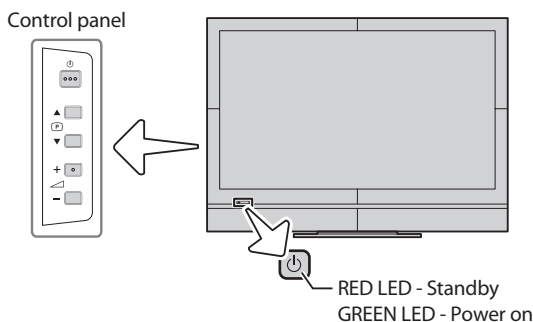
Switching on

If the RED LED is not lit, check that the mains plug is connected to the power supply and press ⏻ on the remote control; it may take a few moments. The GREEN LED will be lit.

To put the television into Standby, press ⏻ on the remote control. To view the television, press ⏻ again. The picture may take a few seconds to appear.

NOTE:
• Putting the television into standby mode will reduce energy consumption, but will still draw some power.
• The TV will automatically turn itself off after approximately 15 minutes if it is tuned to a vacant channel or a station that completes its broadcast for the day. This function does not work in external input or Blue screen Off mode.

Using the menu system

Press **MENU** on the remote control to display the menu.

The menu appears as a list of four topics. As each symbol is selected by pressing ◀ or ▶ on the remote control, its respective options will appear below.
To use the option, press ▲ and ▼ on the remote control to move up and down and press ◀ or ▶ to select your desired setting.

Using the TV controls

• To turn on or off the TV, press ⏻.
• To alter the volume, press ◢ + or – .
  + and – buttons operate as volume up/down as default.
  When a menu is on-screen, these buttons function as left/right menu navigation buttons or adjust settings.
• To alter the programme position, press Ⓟ ▲ or ▼.
  When a menu is on-screen, these buttons function as up/down menu navigation buttons.

Please always refer to the owner's manual of the equipment to be connected for full details.

NOTE: Interactive video games that involve shooting a "gun" at an on-screen target may not work with this TV.

Input selection

1 Press ⊕ on the remote control until the video input mode list appears on the screen, then press ▲, ▼ or ⊕ to select appropriate input source.

Inputs
TV
VIDEO1
VIDEO2
HDMI
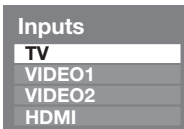
2 Press **OK**.

TV (analogue aerial input),
VIDEO1 (⊕ (1), standard video input),
VIDEO2 (⊕ (2), component video input)
HDMI (HDMI input)

Setup

To set up the television, use the buttons on the remote control as detailed on page 4.

Selecting the menu language

1 Press **MENU / ◀▶** to highlight **SETUP** icon.

2 Press ▲ or ▼ to select **Language**.

3 Press ◀ or ▶ to select the desired language.

Auto Tuning

First, use the **Auto Tuning** function to preset all the active channels in your area automatically.
Then, arrange the preset channels with the **Manual Tuning** function so that you can tune into only desired channels.

• If a signal with a different **Colour System** is received after you have set **Auto Tuning**, switch to the correct **Colour System** in the **Manual Tuning** menu.

1 In the **SETUP** menu, press ▼ to select **Auto Tuning** and press **OK**.

> Auto Tuning
> Previous settings will be Lost!
> Press EXIT for no change.

2 Press **OK** to start **Auto Tuning**.

The search will begin for all available stations.

When **Auto Tuning** is completed, the TV will automatically appear the first programme position.

3 Press **P⌃** or **P⌄** to view the programmed position.

Manual Tuning

Use the **Manual Tuning** operation if desired channels cannot be preset with the **Auto Tuning** or if you would like to preset channels to specific position numbers one by one.

1 In the **SETUP** menu, press ▼ to select **Manual Tuning** and press **OK**.

2 Press ▲ or ▼ to select the desired position.

Different Channel numbers may be displayed.

3 Press **OK** to select.

Press ◀ or ▶ to select an item, then press ▲ or ▼ to select the item as shown below.
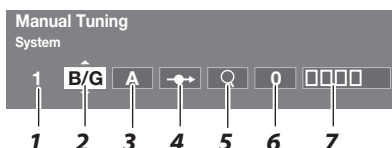
1 Position
The number to be pressed on the remote control to tune the channel.

2 System
Specific to certain areas.

3 Colour System
Factory set to Auto, should only be changed if problems are experienced, i.e. NTSC input from external source.

4 Skip
Press ▲ or ▼ to turn the position skip option on "↩" or off "↦".

The position will then be skipped when you select channels with **P⌃** or **P⌄**.

The "↩" mark will appear beside a position number when you use the **Number** button on the remote control.

5 Channel
Press ▲ to search up the band or ▼ to search down the band.

Press ▲ or ▼ repeatedly until your desired channel is displayed.

When a station is found, it will be displayed.

NEVER PRESS ANY OTHER BUTTONS WHILE THE SET IS TUNING.

6 **Manual Fine Tuning**
Press ▲ or ▼ until better picture and sound are obtained.

7 **Label**
Station labels appear under the programme position display each time you turn on the TV, select a channel, or press ⓘ⁺.

To change or create station labels:

1) Press ▲ or ▼ repeatedly to select a character for the first space, then press ◄ or ►.

┌►A- ↔Z↔(↔)↔ * ↔ + ↔ , ↔ - ↔ . ↔/↔0- ↔9 ↔⊔* ←┐

*(blank space)

2) Repeat step 1) to enter the rest of the characters. If you would like a blank space in the label name, you must choose a blank space from the list of characters.

Press **OK** to store your settings.

Sorting channels

• The TV is capable of receiving a number of different channels depending upon where you live.
• Sorting programme position is an easy way of storing each channel on the programme position of your choice.

Ex.: To swap channel ABCD (Prog.1) for channel MNOP (Prog.4):

1 In the **SETUP** menu, press ▲ or ▼ to select **Manual Tuning** and press **OK**.

2 Press ▲ or ▼ to select the channel **ABCD**, then press ►.

Manual Tuning	
Pos.	**Label**
0	⎯◉⎯►
1	**A B C D** ⇕►
2	E F G H
3	I J K L
4	M N O P
5	
6	
7	⎯◉⎯►
8	⎯◉⎯►

3 Press ▼ to select the new position "**4**", then press ◄.

4 Press ▲ to select the channel **MNOP**, then press ►.

5 Press ▲ to select the new position "**1**", then press ►.

6 Confirm new **Manual Tuning** menu.

Setting the Manual Settings menu

1 In the **SETUP** menu, press ◄ or ► to select **Manual Settings** and press **OK**.

2 Press ◄ or ► to select an item, and then press ▲ or ▼ to select the item as shown below.

Manual Settings
Colour System : AUTO

VIDEO1 ▲
A ▮ ▮ ▮ ▮ ▮ ▮ ▮

1   ***2***
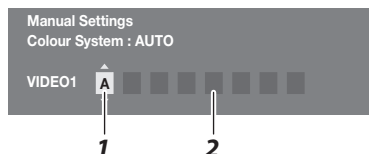
1 **Colour System**
It may take a while for the colours to appear.

NOTE: Only standard video signal input, this function is available.

2 **Label**
The label allows you to label each input source for your TV.

To change or create labels:

1) Press ▲ or ▼ repeatedly to select a character for the first space, then press ◄ or ►.

┌►A- ↔Z↔(↔)↔ * ↔ + ↔ , ↔ - ↔ . ↔/↔0- ↔9 ↔⊔* ←┐

*(blank space)

2) Repeat step 1) to enter the rest of the characters. If you would like a blank space in the label name, you must choose a blank space from the list of characters.

Press **OK** to store your settings.

Resetting the TV

Reset TV will reset all TV settings, including stored channels, to their original factory values.

1 In the **SETUP** menu, press ▲ or ▼ to select **Reset TV**.

2 Press **OK** to select.

A screen will appear warning that all settings will be lost. Select **Yes** and press **OK** to continue.

# Picture controls

Selecting the Picture Size

1 Press ⊞ until the **Picture Size** list appears on the screen, then press ▲ or ▼ to select the appropriate **Picture Size** (or press ⊞ repeatedly to select the desired **Picture Size** directly).

> **Picture Size**
> Wide
> 4:3
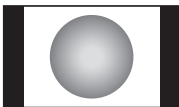> **Super Live**

2 Press **OK**.

Wide
Use this setting when watching a wide-screen DVD, widescreen video tape or a 16:9 broadcast (when available). Due to the range of widescreen formats (16:9, 14:9, 20:9 etc.), you may see bars on the top and bottom of the screen.
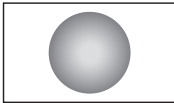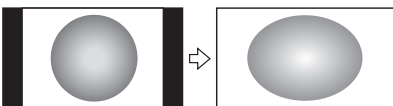
4:3
Use this setting to view a true 4:3 broadcast.

Super Live (only analogue aerial and standard video input)
This setting will enlarge a 4:3 image to fit the screen by stretching the image horizontally, holding better proportions at the centre of the image. Some distortion may occur.

PC Normal (only for HDMI input)
Use this setting for PC connected via HDMI terminal when receiving PC signal format. This setting will display the image correctly without distortion or picture clipping.
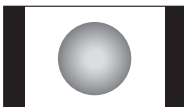
PC Wide (only for HDMI input)
Use this setting for PC connected via HDMI terminal when receiving PC signal format. This setting will display the image without picture clipping.
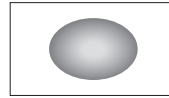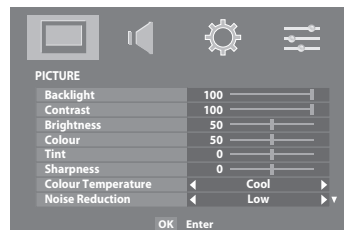
NOTE:
• Using the special functions to change the size of the displayed image (e.g. changing the height/width ratio) for the purpose of public display or commercial gain may infringe on copyright laws.
• If the aspect ratio of the selected format is different from the one of the TV transmission or video programme, it can cause a difference in vision. Change to the correct aspect ratio picture size.

Adjusting the picture quality

You can adjust the basic picture quality.

1 Press **MENU / ◄►** to highlight **PICTURE** icon.

> **PICTURE**
> | Backlight | 100 |
> | Contrast | 100 |
> | Brightness | 50 |
> | Colour | 50 |
> | Tint | 0 |
> | Sharpness | 0 |
> | Colour Temperature | ◄ Cool ► |
> | Noise Reduction | ◄ Low ► ▼ |
>
> OK   Enter

2 Press ▲ or ▼ to select either **Backlight**, **Contrast**, **Brightness**, **Colour**, **Tint** or **Sharpness** and press **OK**.

3 Press ◄ or ► to adjust the settings.

Selecting the Colour Temperature

You can change the tone of the picture by selecting from three preset colour temperatures: **Cool**, **Natural** or **Warm**.

1 In the **PICTURE** menu, press ▲ or ▼ to select **Colour Temperature**.

2 Press ◄ or ► to select mode you prefer.
Cool   : Lends a blue hue to the picture.
Natural : Neutral
Warm   : Lends a red hue to the picture.

Activating the Noise Reduction

If the receiving signal is weak and the picture is blurry, the picture may be improved when using this function.

1 In the **PICTURE** menu, press ▲ or ▼ to select **Noise Reduction**.

2 Press ◀ or ▶ to select **Off**, **Low**, **Middle** or **High**.

Reset

1 In the **PICTURE** menu, press ▲ or ▼ until **Reset** is selected and press **OK**.

Sound controls

Setting the MTS (Multi-channel TV Sound)

Auto mode
The **MTS Auto** mode automatically recognize stereo/bilingual programmes depending on the broadcast signal.

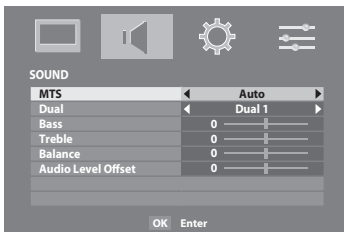**1** Press **MENU / ◀▶** to highlight **SOUND** icon.

2 Press ▲ or ▼ to select **MTS**.

```
                SOUND
  MTS                  ◀      Auto      ▶
  Dual                 ◀      Dual 1    ▶
  Bass                        0
  Treble                      0
  Balance                     0
  Audio Level Offset          0

              OK   Enter
```

3 Press ◀ or ▶ to select **Auto** or **Mono**.

Mono mode
If you experience noise or poor reception of any stereo/bilingual programme, set the **MTS** mode to **Mono**.

Noise will be reduced and reception may improve.

NOTE: If you experience noise with a particular programme on whose channel reception is usually good, try setting **MTS** mode to **Auto**, then switch ◯Ⅰ/Ⅱ to ◯ Mono (monaural).

Selecting the Dual 1 or Dual 2 mode

You can hear only Dual 1 or Dual 2 sound selected, whenever bilingual programmes are received.

1 In the **SOUND** menu, press ▲ or ▼ to select **Dual**.

2 Press ◀ or ▶ to select **Dual 1** or **Dual 2**.

NOTE:
- When the MTS setting is in **Mono** mode, the **Dual** menu is not selectable.
- The **Dual** menu setting status remains even if the TV is turned off.

Adjusting the sound quality

You can adjust the basic sound quality.

1 In the **SOUND** menu, press ▲ or ▼ to select an item you want to adjust.

2 Press ◀ or ▶ to adjust the settings as required.

Selection	◀ Pressing ▶	
Bass	weaker	stronger
Treble	weaker	stronger
Balance	decreases the right channel	decreases the left channel

Adjusting Audio Level Offset

Sometimes there can be large changes in volume when switching from an ATV channel or an external input. Using this feature reduces these volume differences.
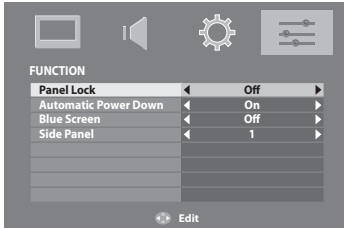
1 In the **SOUND** menu, press ▲ or ▼ to select **Audio Level Offset** and press **OK**.

2 Press ▲ or ▼ to select an option and press ◀ or ▶ to adjust the volume level.

FUNCTION menu

Panel Lock

Panel Lock disables the buttons on the TV. All buttons on the remote control can still be used.

1 Press **MENU / ◀▶** to highlight **FUNCTION** icon.

2 Press ▲ or ▼ to select **Panel Lock**.

FUNCTION		
Panel Lock	◀ Off	▶
Automatic Power Down	◀ On	▶
Blue Screen	◀ Off	▶
Side Panel	◀ 1	▶

Edit

3 Press ◀ or ▶ to select **On** or **Off**.

NOTE: When **Panel Lock** is **On**, a reminder will appear when the buttons on the TV are pressed.
If the standby button is pressed, the TV will switch off and can only be brought out of standby by using the remote control.

Automatic Power Down

With the **Automatic Power Down** function **On**, the TV will automatically turn itself off (standby) after 4 hours, if you do not operate the control buttons on the remote control or on the TV control panel.

1 In the **FUNCTION** menu, press ▲ or ▼ to select **Automatic Power Down**.

2 Press ◀ or ▶ to select **On** or **Off**.

Activating Blue Screen

With the **Blue Screen** function **On**, the screen will automatically turn blue and the sound will be muted when no signal is being received.

1 In the **FUNCTION** menu, press ▲ or ▼ to select **Blue Screen**.

2 Press ◀ or ▶ to select **On** or **Off**.

Adjusting the brightness of Side Panel

You can adjust the brightness of Side Panel in 4:3, etc. mode.

1 In the **FUNCTION** menu, press ▲ or ▼ to select **Side Panel**.

2 Press ◀ or ▶ to adjust the settings as required.

Other Functions

Selecting channels

1 Enter the desired channel using the **Number** buttons on the remote control.

For channels below 10, use 0 and the required number.

2 You can also change the channel by using **P∧** or **P∨**.

The channel will be displayed on the screen with the Mono/Stereo/Dual audio status.

NOTE: Changing channels between different format channels takes several seconds.

Switching between two channels

You can switch two channels without entering actual channel number each time.

1 Select the first channel you want to view.

2 Select the second channel with the **Number** buttons (0-9).

3 Press ⊜. The previous channel will be displayed.

2	EFGH	⊂ Mono

3	IJKL	●○ Dual
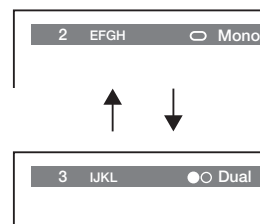
Each time you press ⊜, the TV will switch back and forth between the two channels.

Displaying the on-screen information

1 Press [i+] to display the following on-screen information.

```
4    ABCD           ⬭  Mono  -◉→
```

The information will disappear in 6 seconds.

- Channel or external input mode selected
- Channel skip on/off information
- Label (if set)
- Mono/Stereo/Dual audio status

2 To erase the display instantly, press [i+] again.

Selecting stereo/bilingual

Selecting the stereo programmes

1 When a stereo programme is received, ⬭ **Stereo** appears.

```
10    ABCD           ◯◯ Stereo
```

2 Press ◯◯I/II to select the stereo/monaural mode. ⬭ **Stereo** and ⬭ **Mono** appear cyclically on the screen.

```
◯◯    Stereo
```

Selecting the bilingual programmes

1 When a bilingual programme is received, ●◯ **Dual** appears.

2 Press ◯◯I/II to select the sound to be heard. The sound differs according to the transmission system: NICAM or German stereo/bilingual broadcast.

Display	Sound to be heard	
	NICAM	**German stereo/ bilingual broadcast**
●◯ Dual 1	Sub I sound	Main sound
◯● Dual 2	Sub II sound	Sub sound
⬭ Mono	Main sound	—

NOTE: These settings are not stored in the TV memory.

Selecting the monaural programmes

If sound distortion, interruptions or silence arises in the low sound volume level, setting the ⬭ **Mono 2** mode will mitigate the problem.

1 When a monaural programme is received, ⬭ **Mono** appears.

2 Press ◯◯I/II to select a monaural mode that is easy to hear. ⬭ **Mono 1** and ⬭ **Mono 2** appear cyclically to the screen.

NOTE: On some cases, the reception of stereo/bilingual broadcasts may not be possible after switching on the ⬭ **Mono 2** mode.

Setting the Sleep Timer

The Timer is especially useful if you want the TV to turn itself off after a selected period of time.

1 Press **SLEEP** and press ◀ or ▶ (**SLEEP**) to set the required **Sleep Timer** (Turn off the TV).

The timer display will set by 10 minutes, up to 12 hours.

To cancel the Sleep Timer:

Press ◀ or ▶ (**SLEEP**) until the timers set to 00:00.

Questions and Answers

Before calling a service technician, please check the following table for a possible cause of the symptom and some solutions.

Q *TV will not turn on*

A Make sure the power cord is plugged in, and then press ⏻.
The remote control batteries may be dead.
Replace the batteries.

Q *No picture, no sound*

A Check the aerial connections.

Q *No sound, picture OK*

A The sound may be muted. Press ⊿ +, – or ⊠.
The station may have broadcast difficulties.
Try another channel.

Q *Poor sound, picture OK*

A The station may have broadcast difficulties.
Try another channel.

Q *Poor picture, sound OK*

A Check the aerial connections.
The station may have broadcast difficulties.
Try another channel.
Adjust the **PICTURE** menu.

Q *Poor reception of broadcast channels*

A Check the aerial connections.
The station may have broadcast difficulties.
Try another channel.
Make sure the Colour System is properly set.

Q *The brightness of the screen comes down, or flickers of the screen are caused, or some parts of the screen do not light up.*

A When you just buy and start to use this TV, a flickering may be caused in the screen. In this case, switch off the TV, then switch on it again to cure the condition.
The cold cathode fluorescent lamp used for the back light on this TV has longevity. When the brightness of the screen comes down, or the flickers of the screen are caused, or some parts of the screen do not light up, it may reach the end of its life. Contact a service technician.

Q *Some pixels of the screen do not light up*

A The LCD display panel is manufactured using an extremely high level of precision technology, however, sometimes some pixels of the screen may be missing picture elements or have luminous spots. This is not a sign of a malfunction.

Disposal…
The following information is only for EU-member states:

Disposal of products
The crossed out wheeled dust bin symbol indicates that products must be collected and disposed of separately from household waste. Integrated batteries and accumulators can be disposed of with the product. They will be separated at the recycling centres.
The black bar indicates that the product was placed on the market after August 13, 2005.
By participating in separate collection of products and batteries, you will help to assure the proper disposal of products and batteries and thus help to prevent potential negative consequences for the environment and human health.
For more detailed information about the collection and recycling programmes available in your country, please contact your local city office or the shop where you purchased the product.

Disposal of batteries and/or accumulators
The crossed out wheeled dust bin symbol indicates that batteries and/or accumulators must be collected and disposed of separately from household waste.
If the battery or accumulator contains more than the specified values of lead (Pb), mercury (Hg), and/or cadmium (Cd) defined in the Battery Directive (2006/66/EC), then the chemical symbols for lead (Pb), mercury (Hg) and/or cadmium (Cd) will appear below the crossed out wheeled dust bin symbol.
By participating in separate collection of batteries, you will help to assure the proper disposal of products and batteries and thus help to prevent potential negative consequences for the environment and human health.
For more detailed information about the collection and recycling programmes available in your country, please contact your local city office or the shop where you purchased the product.

EU

Hg Cd Pb

Specifications and accessories

Broadcast systems/channels

PAL-I	UHF UK21-UK69
PAL-B/G	UHF E21-E69
	VHF E2-E12, S1-S41
SECAM-L	UHF F21-F69
	VHF F1-F10, B-Q
SECAM-D/K	UHF R21-R69
	VHF R1-R12

Video Input PAL, SECAM, NTSC 3.58/4.43

External connections

VIDEO1	Input	Phono jack	Video
		Phono jacks	Audio L + R
VIDEO2	Input	Phono jacks	Y, PB/CB, PR/CR
		Phono jacks	Audio L + R
HDMI	Input	HDMI™	

Stereo Nicam
2 carrier system

Visible Screen Size 19 47cm
(approx.) 24 60cm
32 80cm

Display 16:9

Sound output Main: 5W + 5W
(at 10% distortion)

Power consumption 19 22W
(approx.) 24 48W
32 85W

Standby power 19 0.4W
consumption 24 0.5W
(approx.) 32 0.5W

On-mode power 19 17.8W
consumption* 24 37.0W
(approx.) 32 58.7W

Average annual 19 25.9kWh/y
energy 24 54.1kWh/y
consumption** 32 85.7kWh/y
(approx.)

* Tested in accordance with IEC 62087-BD Ed. 2.0:2008.
** Operating 4 hours a day and 365 days a year.

Dimensions 19 454 (W) 320 (H) 95 (D) mm
(approx.) 24 570 (W) 387 (H) 125 (D) mm
32 784 (W) 518 (H) 160 (D) mm
(Height dimension includes foot stand)

Weight (approx.) 19 3.0kg
24 4.5kg
32 8.0kg

Supplied accessories • Remote control CT-90400
2 batteries (AAA, IEC R03 1.5V)
• Power cord

Specification is subject to change without notice.